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L.N. 196 of 2014**MALTA RESOURCES AUTHORITY ACT
(CAP. 423)****BUILDING REGULATION ACT
(CAP. 513)****Energy Efficiency and Cogeneration Regulations, 2014**

IN exercise of the powers conferred by article 28(1) of the Malta Resources Authority Act and article 6(1) of the Building Regulation Act, the Minister for Energy and Health and the Minister for Transport and Infrastructure, after consultation with the Building Regulation Board, the Malta Resources Authority and the Malta Environment and Planning Authority, have made the following regulations:-

Citation, scope
and
commencement.

1. (1) The title of these regulations is the Energy Efficiency and Cogeneration Regulations, 2014.

(2) These regulations transpose Directive 2012/27/EU of the European Parliament and of the Council of the 25th October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC.

(3) These regulations establish a framework as part of the common framework of measures for the promotion of energy efficiency within the Union in order to ensure the achievement of the 2020 20% headline target on energy efficiency and to pave the way for further energy efficiency improvements beyond that date. These regulations also lay down rules designed to remove barriers in the energy market and overcome market failures that impede efficiency in the supply and use of energy, and provide for the establishment of an indicative national energy efficiency target for 2020.

(4) These regulations shall be deemed to have entered into force on the 1st January 2014.

Interpretation.

2. (1) Unless stated otherwise in these regulations, the definitions in the Act shall apply.

(2) For the purposes of these regulations, and unless the context otherwise requires:

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"the Act" means the Malta Resources Authority Act

"Authority" means the Malta Resources Authority established by article 3 of the Act;

"aggregator" means a demand service provider that combines multiple short-duration consumer loads to sell or auction in organised energy markets;

"building element" shall have the same meaning as under the Energy Performance of Buildings Regulations; S.L. 513.01

"Building Regulation Board" means the Board established under article 3 of the Building Regulation Act; Cap. 513.

"cogeneration" means the simultaneous generation in one process of thermal energy and electrical or mechanical energy;

"cogeneration unit" means a unit that can operate in cogeneration mode;

"the Commission" means the European Commission established by the Treaty on the Functioning of the European Union as amended by the Lisbon Treaty, 2009;

"contracting authorities" shall have the same meaning as under the Public Procurement Regulations; S.L. 174.04

"Council Decision 2006/1005/EC" means Council Decision of 18 December 2006 concerning conclusion of the Agreement between the Government of the United States of America and the European Community on the coordination of energy-efficiency labelling programmes for office equipment;

"Decision 2008/952/EC" means Commission Decision of the 19th November 2008 establishing detailed guidelines for the implementation and application of Annex II to Directive 2004/8/EC of the European Parliament and of the Council;

"distribution system operator" shall have the same meaning as under the Electricity Market Regulations, and the Natural Gas Market Regulations, respectively; S.L. 423.22;
S.L. 423.21

"economically justifiable demand" means demand that does not exceed the needs for heating or cooling and which would otherwise be satisfied at market conditions by energy generation processes other than cogeneration;

"efficient district heating and cooling" means a district heating or cooling system using at least 50% renewable energy, 50% waste heat, 75% cogenerated heat or 50% of a combination of such energy

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and heat;

"efficient heating and cooling" means a heating and cooling option that compared to a baseline scenario reflecting a business as usual situation measurably reduces the input of primary energy needed to supply one unit of delivered energy within a relevant system boundary in a cost-effective way, as assessed in the cost-benefit analysis referred to in these regulations, taking into account the energy required for extraction, conversion, transport and distribution;

"efficient individual heating and cooling" means an individual heating and cooling supply option that compared to efficient district heating and cooling measurably reduces the input of non-renewable primary energy needed to supply one unit of delivered energy within a relevant system boundary or requires the same input of non-renewable primary energy but at a lower cost, taking into account the energy required for extraction, conversion, transport and distribution;

"electricity from cogeneration" means electricity generated in a process linked to the production of useful heat and calculated in accordance with the methodology laid down in the First Schedule;

"energy" means all forms of energy products, combustible fuels, heat, renewable energy, electricity, or any other form of energy, as defined in Regulation (EC) No 1099/2008 of the European Parliament and of the Council of 22 October 2008 on energy statistics;

"energy audit" means a systematic procedure to obtain adequate knowledge of the existing energy consumption profile of a building or group of buildings, an industrial or commercial operation or installation or a private or public service, to identify and quantify cost-effective energy savings opportunities, and report the findings;

"energy distributor" means a natural or legal person, including a distribution system operator, responsible for transporting energy with a view to its delivery to final customers or to distribution stations that sell energy to final customers;

"energy efficiency" means a ratio between an output of performance, service, goods or energy, and an input of energy;

"energy efficiency improvement" means an increase in energy efficiency as a result of technological, behavioural and, or economic changes;

"energy management system" means a set of interrelated or

interacting elements of a plan which sets an energy efficiency objective and a strategy to achieve that objective;

"energy performance contracting" means a contractual arrangement between the beneficiary and the provider of an energy efficiency improvement measure, verified and monitored during the whole term of the contract, where investments (work, supply or service) in that measure are paid for in relation to a contractually agreed level of energy efficiency improvement or other agreed energy performance criterion, such as financial savings;

"energy savings" means an amount of saved energy determined by measuring and, or estimating consumption before and after implementation of one or more energy efficiency improvement measures, whilst ensuring normalisation for external conditions that affect energy consumption;

"energy service" means the physical benefit, utility or good derived from a combination of energy with energy efficient technology or with action, which may include the operations, maintenance and control necessary to deliver the service, which is delivered on the basis of a contract and in normal circumstances has proven to result in verifiable and measurable or estimable energy efficiency improvement or primary energy savings;

"energy service provider" means a natural or legal person who delivers energy services or other energy efficiency improvement measures in a final customer's facility or premises;

"entrusted party" means a legal entity with delegated power from Government or another public body to develop, manage or operate a financing scheme on behalf of Government or other public body;

"European standard" means a standard adopted by the European Committee for Standardisation, the European Committee for Electrotechnical Standardisation or the European Telecommunications Standards Institute and made available for public use;

"European Union" or "Union" means the European Union as referred to in the Treaty;

"final customer" means a natural or legal person who purchases energy for his or her own end use;

"final energy consumption" means all energy supplied to industry, transport, households, services and agriculture:

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Provided that, it shall exclude deliveries to the energy transformation sector and the energy industries themselves;

"Government" means the Government of Malta and includes all administrative departments of Government whose competence extends over the whole territory of Malta, but shall not include local councils;

"high-efficiency cogeneration" means cogeneration meeting the criteria laid down in the Second Schedule;

"implementing public authority" means a body governed by public law which is responsible for the carrying out or monitoring of energy or carbon taxation, financial schemes and instruments, fiscal incentives, standards and norms, energy labelling schemes, training or education;

"individual action" means an action that leads to verifiable, and measurable or estimable, energy efficiency improvements and is undertaken as a result of a policy measure;

"International standard" means a standard adopted by the International Standardisation Organisation and made available to the public;

"Malta" has the same meaning as is assigned to it by article 124 of the Constitution of Malta;

"Member State" means a member state of the European Union;

"micro-cogeneration unit" means a cogeneration unit with a maximum capacity below 50 kWe;

"the Minister" means the Minister responsible for the Malta Resources Authority;

Provided that the Minister may designate any such body to carry out any such function as is attributed to the Minister under these regulations:

Provided further that such designation shall be made public by means of a notice published in the Government Gazette;

"National Energy Efficiency Action Plan" or "the Plan" means the action plan which is intended to achieve the national energy efficiency targets required by regulation 3(1) and towards the implementation of these regulations;

"obligated party" means the energy distributor or retail energy sales company that is bound by the national energy efficiency obligation schemes referred to in regulation 7;

"overall efficiency" means the annual sum of electricity and mechanical energy production and useful heat output divided by the fuel input used for heat produced in a cogeneration process and gross electricity and mechanical energy production;

"participating party" means an enterprise or public body that has committed itself to reach certain objectives under a voluntary agreement, or is covered by a national regulatory policy instrument;

"plot ratio" means the ratio between the land area and the building floor area in a given territory;

"policy measure" means a regulatory, financial, fiscal, voluntary or information provision instrument that has been formally established and implemented to create a supportive framework, requirement or incentive for market actors to provide and purchase energy services and to undertake other energy efficiency improvement measures;

"power to heat ratio" means the ratio between electricity from cogeneration and useful heat when operating in full cogeneration mode using operational data of the specific unit;

"primary energy consumption" means gross inland consumption, excluding non-energy uses;

"public bodies" means "contracting authorities" as defined in the Public Procurement Regulations;

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"Regulation (EU) No 510/2011" means Regulation (EU) No 510/2011 of the European Parliament and of the Council of the 11th May 2011 setting emission performance standards for new light commercial vehicles as part of the Union's integrated approach to reduce CO₂ emissions from light-duty vehicles;

"Regulation (EC) No 443/2009" means Regulation (EC) No 443/2009 of the European Parliament and of the Council of the 23d April 2009 setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO₂ emissions from light-duty vehicles;

"Regulation 714/2009" means Regulation (EC) No 714/2009 of the European Parliament and of the Council of the 13th July 2009 on conditions for access to the network for cross-border exchanges in

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electricity and repealing Regulation (EC) No 1228/2003;

"Regulation (EC) No 1222/2009" means Regulation (EC) No 1222/2009 of the European Parliament and of the Council of the 25th November 2009 on the labelling of tyres with respect to fuel efficiency and other essential parameters;

"retail energy sales company" means a natural or legal person who sells energy to final customers;

"small and medium-sized enterprises" means enterprises as defined in Title I of the Annex to Commission Recommendation 2003/361 of the 6th May 2003 concerning the definition of micro, small and medium-sized enterprises. The category of micro, small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and, or an annual balance sheet total not exceeding EUR 43 million;

"small scale cogeneration unit" means a cogeneration unit with installed capacity below 1MWe;

"smart metering system" means an electronic system that can measure energy consumption, adding more information than a conventional meter, and can transmit and receive data using a form of electronic communication;

"substantial refurbishment" means a refurbishment whose cost exceeds 50% of the investment cost for a new comparable unit;

"total useful floor area" means the floor area of a building or part of a building, where energy is used to condition the indoor climate;

"transmission system operator" means "transmission system operator" as defined in Directive 2009/72/EC and Directive 2009/73/EC respectively;

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"Treaty" shall have the same meaning in as in the European Union Act;

"useful heat" means heat produced in a cogeneration process to satisfy economically justifiable demand for heating or cooling.

Minister to set national energy efficiency target.

3. (1) The Minister shall set an indicative national energy efficiency target, based on either primary or final energy consumption, primary or final energy savings, or energy intensity. In notifying these targets to the Commission in accordance with

regulation 24(1) and the First Part of the Fourteenth Schedule, the Minister shall also express them in terms of an absolute level of primary energy consumption and final energy consumption in 2020 and shall explain how, and on the basis of which data, this has been calculated. When setting these targets, the Minister shall take into account:

- (a) that the Union's 2020 energy consumption has to be no more than 1474 Mtoe of primary energy or no more than 1078 Mtoe of final energy;
- (b) the measures provided for in these regulations;
- (c) the measures adopted to reach the national energy saving targets adopted pursuant to regulation 4(1) of the Energy End-use Efficiency and Energy Services Regulations; and S.L. 423.34
- (d) other measures to promote energy efficiency within Member States and at Union level.

(2) When setting the national energy efficiency target, the Minister may also take into account national circumstances affecting primary energy consumption, such as remaining cost-effective energy-saving potential, GDP evolution and forecast, changes of energy imports and exports, development of all sources of renewable energies, nuclear energy, carbon capture and storage (CCS), and early action.

4. (1) The Building Regulation Board shall establish a long-term strategy for mobilizing investment in the renovation of the national stock of residential and commercial buildings, both public and private. This strategy should encompass:

Long term strategy to be set by the Board.

- (a) an overview of the national building stock based, as appropriate, on statistical sampling;
- (b) an identification of cost effective approaches to renovations relevant to the building type and climatic zone;
- (c) policies and measures to stimulate cost-effective deep renovations of buildings, including staged deep renovations;
- (d) a forward looking perspective to guide investment decisions of individuals, the construction industry and financial institutions;
- (e) an evidence-based estimate of expected energy

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savings and wider benefits.

(2) An updated version of the first version of the strategy mentioned in sub-regulation (1) shall be published by the Building Regulation Board every three years, which are to be reckoned as from the date of the publication of such first version. The updated versions are also to be submitted by the Building Regulation Board to the Minister for transmission to the Commission as part of the National Energy Efficiency Action Plans.

Requirements as
to Government
buildings, etc.
S.L. 513.01

5. (1) Without prejudice to regulation 8 of the Energy Performance of Buildings Regulations, as from the 1st January 2014, 3% of the total floor area of heated and, or cooled buildings owned and occupied by Government shall be renovated each year to meet at least the minimum energy performance requirements set by the Building Regulation Board in the application of regulation 5 of the Energy Performance of Buildings Regulations. The 3% rate shall be calculated on the total floor area of buildings with a total useful floor area over 500 m² and, as of the 9th July 2015, over 250 m² owned and occupied by Government that, on the 1st January of each year, do not meet the national minimum energy performance requirements set in application of regulation 5 of the Energy Performance of Buildings Regulations.

(2) Where the Building Regulation Board requires that the obligation to renovate each year 3% of the total floor area extends to floor area owned and occupied by administrative departments at a level below central government, the 3% rate shall be calculated on the total floor area of buildings with a total useful floor area over 500 m² and as of the 9th July 2015 over 250 m² owned and occupied respectively by Government and these administrative departments that, on the 1st January of each year, do not meet the national minimum energy performance requirements set in application of the regulations relating to the Energy Performance of Buildings Regulations.

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(3) When implementing measures for the comprehensive renovation of Government buildings in accordance with sub-regulation (1), buildings may be considered as a whole, including building envelope, equipment, operation and maintenance. Government buildings with the lowest energy performance shall be a priority for energy efficiency measures, where cost-effective and technically feasible.

(4) The requirements referred to in sub-regulation (1) shall not apply to the following categories of buildings:

(a) buildings officially protected as part of a designated environment, or because of their special architectural or historical merit, in so far as compliance with certain minimum energy performance requirements would unacceptably alter their character or appearance;

(b) buildings owned by the armed forces or Government and serving national defence purposes, but excluding single living quarters or office buildings for the armed forces and other staff employed by national defence authorities;

(c) buildings used as places of worship and for religious activities.

(5) The annual renovation rate of Government's buildings may be counted towards the excess of renovated building floor area of central government buildings in a given year as if it has instead been renovated in any of the three previous or following years.

(6) The annual renovation rate of Government buildings may be counted to include new buildings occupied and owned as replacements of specific Government buildings demolished in any of the two previous years, or buildings that have been sold, demolished or taken out of use in any of the two previous years due to more intensive use of other buildings.

(7) For the purposes of sub-regulation (1), by the 1st January 2014, the Building Regulation Board in collaboration with the Government Property Division shall establish and make publicly available an inventory of heated and, or cooled central government buildings with a total useful floor area over 500 m² and, by the 9th July 2015, over 250 m², excluding buildings exempted on the basis of sub-regulation (2), containing the following data:

(a) the floor area in m²; and

(b) the energy performance of each building or relevant energy data.

(8) As an alternative approach to sub-regulations (1), (2), (3), (4) and (5), and without prejudice to regulation 8 of the Energy Performance of Buildings Regulations, the Building Regulation Board may take other cost-effective measures, including deep renovations and measures for behavioural change of occupants, to achieve by 2020 an amount of energy consumption savings in eligible buildings owned and occupied by Government that is at least equivalent to that required in sub-regulation (1), reported on an

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annual basis. For the purpose of this alternative approach, the Building Regulation Board may estimate the energy savings that sub-regulations (1), (2), (3) and (4) would generate by using appropriate standard values for the energy consumption of reference Government buildings before and after renovation and according to estimates of the surface of their stock. The categories of reference Government buildings shall be representative of the stock of such buildings. In the case of an alternative approach being opted for, the Minister shall notify to the Commission, by the 1st January 2014 at the latest, the alternative measures that are planned to be adopted and showing how they would achieve an equivalent improvement of the energy performance of the buildings within the Government estate.

(9) The Building Regulation Board shall encourage public bodies, including at regional and local level, and social-housing bodies governed by public law, with due regard for their respective competences and administrative set-up, to:

(a) adopt an energy efficiency plan, free-standing or as part of a broader climate or environmental plan, containing specific energy saving and efficiency objectives and actions, with a view to following the exemplary role of Government buildings laid down in sub-regulations (1), (5) and (6);

(b) put in place an energy management system, including energy audits, as part of the implementation of their plan;

(c) use, where appropriate, ESCOs, and energy performance contracting to finance renovations and implement plans to maintain or improve energy efficiency in the long term.

Purchases by contracting authorities to be cost effective.

6. (1) Contracting authorities shall only purchase products, services and buildings with high-energy efficiency performance, insofar as this is consistent with cost-effectiveness, economical feasibility, wider sustainability, technical suitability, as well as sufficient competition, as referred to in the Third Schedule. The aforementioned obligation shall apply to contracts for the purchase of products, services and buildings by public bodies in so far as these contracts have a value equal to or greater than the thresholds laid down in Article 7 of Directive 2004/18/EC as amended:

Provided that such obligation shall apply to the contracts of the armed forces, only to the extent that its application does not cause any conflict with the nature and primary aim of the activities of the armed forces and with the exception of military equipment as defined in the Public Procurement of Contracting Authorities or

S.L. 174.08

Entities in the fields of Defence and Security Regulations.

(2) Public bodies shall be encouraged by the Minister, including at local council level, with due regard for their respective competences and administrative set-up, to follow the exemplary role of Government departments to purchase only products, services and buildings with high-energy efficiency performance. Public bodies shall also be encouraged when tendering service contracts with significant energy content, to assess the possibility of concluding long term energy performance contracts that provide long-term energy savings.

(3) Without prejudice to sub-regulation (1), when purchasing a product package covered as a whole by a delegated act adopted under Directive 2010/30 EU, the aggregate energy efficiency shall take priority over the energy efficiency of individual products within that package, by purchasing the product package that complies with the criterion of belonging to the highest energy efficiency class.

7. (1) Without prejudice and subject to regulation 9, the Minister shall set up an energy efficiency obligation scheme. The energy efficiency obligation scheme shall ensure that:

Energy
efficiency
obligation
scheme.

(a) energy distributors and, or retail energy sales companies that are designated as obligated parties under sub-regulation (5) operating in Malta achieve a cumulative end-use energy savings target by the 31st December 2020, without prejudice to sub-regulation (3); and

(b) that the aforesaid target in paragraph (a) shall be at least equivalent to achieving new savings each year from the 1st January 2014 to the 31st December 2020 of 1.5% of the annual energy sales to final customers of all energy distributors or all retail energy sales companies by volume, averaged over the most recent three-year period prior to the 1st January 2013. The sales of energy, by volume, used in transport may be partially or fully excluded from this calculation.

(2) The Minister shall decide how the calculated quantity of new savings referred to in sub-regulation (1)(b) shall be phased over the period.

(3) The Minister may, without prejudice to sub-regulation (4):

(a) carry out the calculation required by the sub-regulation (1)(b) using values of 1% in 2014 and 2015, 1.25% in 2016 and 2017, and 1.5% in 2018, 2019 and 2020;

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(b) exclude from the calculation all or part of the sales, by volume, of energy used in industrial activities listed in Schedule I to the European Union Greenhouse Gas Emissions Trading Scheme for Stationary Installations Regulations;

(c) allow energy savings achieved in the energy transformation, distribution and transmission sectors, including efficient district heating and cooling infrastructure, as a result of the implementation of the requirements set out in regulation 16(5), and (6)(b), regulation 17(1) to (7) and (11) to be counted against the amount of energy savings required under sub-regulation (1); and

(d) count energy savings resulting from individual actions newly implemented since the 31st December 2008 that continue to have impact in 2020 and can be measured and verified, against the amount of energy savings required under sub-regulation (1).

(4) The application of sub-regulation (3) shall not lead to a reduction of more than 25% of the amount of energy savings referred to in sub-regulation (1). The use of sub-regulation (3) shall be notified to the Commission by the 5th June 2014, including the elements listed under sub-regulation (3) to be applied and a calculation showing their impact on the amount of energy savings referred to in sub-regulation (1).

(5) Without prejudice to the calculation of energy savings for the target in accordance with sub-regulation (1)(b), the Authority shall designate, on the basis of objective and non-discriminatory criteria, obligated parties amongst energy distributors and, or retail energy sales companies operating in Malta and may include transport fuel distributors or transport fuel retailers operating in Malta. The amount of energy savings to fulfil the obligation shall be achieved by the obligated parties among final customers, designated, as appropriate, by the Authority, independently from the calculation made pursuant to sub-regulation (1), or, if the Minister so decides, through certified savings stemming from other parties as described in sub-regulation (8)(b). The Authority shall have the right to obtain audited data from the obligated parties within a reasonable time in regard to such certified savings.

(6) The Authority shall express the amount of energy savings required from each obligated party in terms of either final or primary energy consumption. The method chosen for expressing the required amount of energy savings shall also be used for calculating the savings claimed by obligated parties. The conversion factors in the

Fourth Schedule shall apply.

(7) The Authority shall ensure that the savings stemming from sub-regulations (1), (2) and (3) of this regulation, regulation 9 and from regulation 22(4) are calculated in accordance with items 2 and 3 of the Fifth Schedule. The Authority shall put in place measurement, control and verification systems under which at least a statistically significant proportion and representative sample of the energy efficiency improvement measures put in place by the obligated parties is verified:

Provided that, the measurement, control and verification shall be conducted independently of the obligated parties.

(8) Within the energy efficiency obligation scheme, the Minister may:

(a) include requirements with a social aim in the saving obligations they impose, including by requiring a share of energy efficiency measures to be implemented as a priority in households affected by energy poverty or in social housing;

(b) permit obligated parties to count towards their obligation certified energy savings achieved by energy service providers or other third parties, including where obligated parties promote measures through other state-approved bodies or through public authorities that may or may not involve formal partnerships and may be in combination with other sources of finance:

Provided that, in this case an approval process is in place that is clear, transparent and open to all market actors, and that aims at minimising the costs of certification;

(c) allow obligated parties to count savings obtained in a given year as if they had instead been obtained in any of the four previous or three following years.

8. (1) The Authority shall annually publish the energy savings achieved by each obligated party, or each sub-category of obligated party, and in total under the scheme referred to in regulation 7. Publication of energy savings.

(2) Obligated parties shall provide on request, but not more than once a year:

(a) aggregated statistical information on their final customers (identifying significant changes to previously

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submitted information); and

(b) current information on final customers' consumption, including, where applicable, load profiles, customer segmentation and geographical location of customers, while preserving the integrity and confidentiality of private or commercially sensitive information in compliance with applicable Union legislation.

Option to take other policy measures.

9. (1) As an alternative to setting up an energy efficiency obligation scheme under regulation 7(1), the Minister may opt to take other policy measures to achieve energy savings among final customers:

Provided that those policy measures shall meet the criteria set out in sub-regulations (5) and (6) of this regulation.

(2) The annual amount of new energy savings achieved through the alternative approach set out in sub-regulation (1) shall be equivalent to the amount of new energy savings required by regulation 7(1) to (4):

Provided that the Minister may combine obligation schemes with alternative policy measures, including national energy efficiency programmes if equivalence is maintained.

(3) The policy measures referred to in sub-regulation (1) may include, but are not restricted to, the following policy measures or combinations thereof:

(a) energy or CO₂ taxes that have the effect of reducing end-use energy consumption;

(b) financing schemes and instruments or fiscal incentives that lead to the application of energy efficient technology or techniques and have the effect of reducing end-use energy consumption;

(c) regulations or voluntary agreements that lead to the application of energy efficient technology or techniques and have the effect of reducing end-use energy consumption;

(d) standards and norms that aim at improving the energy efficiency of products and services, including buildings and vehicles, except where these are mandatory and applicable under EU law;

(e) energy labelling schemes, with the exception of

those that are mandatory and applicable under EU law;

(f) training and education, including energy advisory programmes, that lead to application of energy-efficient technology or techniques and have the effect of reducing end-use energy consumption.

(4) The Minister shall notify to the Commission, by the 5th December 2013, the policy measures that are planned to be adopted for the purposes of sub-regulation (1) and regulation 22(4) following the framework provided in item 4 of Part A of the Fifth Schedule, and showing how they would achieve the required amount of savings. In the case of the policy measures referred to in sub-regulation (3) and in regulation 22(4), this notification shall demonstrate how the criteria in sub-regulation (5) are met. In the case of policy measures other than those referred to in the sub-regulation (3) and in regulation 22(4), the Minister shall explain how an equivalent level of savings, monitoring and verification is achieved.

(5) Without prejudice to sub-regulation (6), the criteria for the policy measures taken pursuant to sub-regulation (3) and in regulation 22(4) shall be as follows:

(a) the policy measures provide for at least two intermediate periods by the 31st December 2020 and lead to the achievement of the level of ambition as set in regulation 7(1);

(b) the responsibility of each entrusted party, participating party or implementing public authority, whichever is relevant, is defined;

(c) the savings that are to be achieved are determined in a transparent manner;

(d) the amount of savings required or to be achieved by the policy measure are expressed in either final or primary energy consumption, using the conversion factors in the Fourth Schedule;

(e) energy savings are calculated using the methods and principles provided in items 1 and 2 of the Fifth Schedule;

(f) energy savings are calculated using the methods and principles provided in item 3 of Part A of the Fifth Schedule;

(g) an annual report of the energy savings achieved is provided by participating parties unless not feasible and made

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publicly available;

(h) monitoring of the results is ensured and appropriate measures are envisaged if the progress is not satisfactory;

(i) a control system is put in place that also includes independent verification of a statistically significant proportion of the energy efficiency improvement measures; and

(j) data on the annual trend of energy savings are published annually.

(6) The taxes referred to in sub-regulation (3)(a) shall comply with the criteria listed in paragraphs (a), (b), (c), (d), (f), (h) and (j) of sub-regulation (5). The regulations and voluntary agreements referred to in sub-regulation (3)(c) shall comply with the criteria listed in paragraphs (a), (b), (c), (d), (e), (g), (h), (i) and (j) of sub-regulation (5). The other policy measures referred to in sub-regulation (3)(a), and the Energy Efficiency National Funds referred to in regulation 22(4) comply with the criteria listed in paragraphs (a), (b), (c), (d), (e), (h), (i) and (j) of sub-regulation (5).

(7) The Minister shall ensure that when the impact of policy measures or individual actions overlaps, no double counting of energy savings is made.

Availability of energy audits to final customers.

10. (1) The Minister shall promote the availability to all final customers of high quality energy audits which are cost-effective and:

(a) carried out in an independent manner by qualified and, or accredited experts according to qualification criteria; or

(b) implemented and supervised by independent authorities under Maltese law.

(2) The energy audits referred to in sub-regulation (1)(a) may be carried out by in-house experts or energy auditors:

Provided that the Minister shall have put in place a scheme to assure and check their quality, including, if appropriate, an annual random selection of at least a statistically significant percentage of all the energy audits they carry out.

(3) For the purpose of guaranteeing the high quality of the energy audits and energy management systems, the Minister shall establish transparent and non-discriminatory minimum criteria for energy audits based on the principles set out in Part B of the Fifth

Schedule.

(4) Energy audits shall not include clauses preventing the findings of the audit from being transferred to any qualified and, or accredited energy service provider, on condition that the customer does not object. Notwithstanding the foregoing, the findings of the audit shall promptly be submitted to the Minister upon being demanded and in any case by not later than seven days from such demand being made.

(5) The Minister shall develop programmes to encourage small and medium-sized enterprises to undergo energy audits, and the subsequent implementation of the recommendations from these audits. The Minister shall also develop programmes to raise awareness among households about the benefits of such audits through appropriate advice services.

(6) On the basis of transparent and non-discriminatory criteria and without prejudice to Union State aid law, support schemes may be set up for SMEs including, if they have concluded voluntary agreements, to cover costs of an energy audit and of the implementation of highly cost-effective recommendations from the energy audits, if the proposed measures are implemented.

(7) The Minister shall also develop programmes to raise awareness among households about the benefits of the audits referred to in sub-regulation (6) through appropriate advice services. The Minister shall encourage training programmes for the qualification of energy auditors in order to facilitate sufficient availability of experts.

(8) The Minister shall bring to the attention of small and medium-sized enterprises, including through their respective representative intermediary organisations, concrete examples of how energy management systems could help their business.

(9) Enterprises that are not SMEs shall commission an energy audit carried out in an independent and cost-effective manner by qualified and, or accredited experts or implemented and supervised by independent authorities under national legislation by the 5th December 2015 and at least every four years from the date of the previous energy audit.

(10) Energy audits shall be considered as fulfilling the requirements of sub-regulation (9) when they are carried out in an independent manner, on the basis of minimum criteria based on the principles set out in Part B of the Fifth Schedule, and implemented under voluntary agreements concluded between organisations of

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stakeholders and an appointed body and supervised by the Minister, or other bodies to which the Minister has delegated the responsibility concerned. Access of market participants offering energy services shall be based on transparent and non-discriminatory criteria.

(11) Enterprises, which are not SMEs, implementing an energy or environmental management system, certified by an independent body according to the relevant European or International Standards, shall be exempted from the requirements of sub-regulation (9):

Provided that the management system concerned includes an energy audit on the basis of the minimum criteria based on the principles set out in Part B of the Fifth Schedule.

(12) Energy audits may stand alone or be part of a broader environmental audit. An assessment of the technical and economic feasibility of connection to an existing or planned district heating or cooling network shall be part of the energy audit.

(13) Without prejudice to Union State aid law, incentive and support schemes may be implemented for the implementation of recommendations from energy audits and similar measures.

Provision of individual meters.

11. (1) Final customers for electricity, natural gas, district heating, district cooling and domestic hot water shall be provided by their suppliers with competitively priced individual meters that accurately reflect the final customer's actual energy consumption and that provide information on actual time of use:

Provided that this requirement shall apply in so far as it is technically possible, financially reasonable and proportionate in relation to the potential energy savings.

(2) When an existing meter is replaced, such a competitively priced individual meter shall always be provided, unless this is technically impossible or not cost-effective in relation to the estimated potential savings in the long term.

S.L. 513.01

(3) When a new connection is made in a new building or a building undergoes major renovations, as set out in the Energy Performance of Buildings Regulations, such competitively priced individual meters shall always be provided.

S.L. 423.22;
S.L. 423.21

(4) Where, and to the extent that, intelligent metering systems are implemented and smart meters for gas and, or electricity are rolled out in accordance with the Electricity Market Regulations, and the Natural Gas Market Regulations:

(a) metering systems shall provide to final customers information on actual time of use. The objectives of energy efficiency and benefits for final customers shall be fully taken into account when establishing the minimum functionalities of the meters and the obligations imposed on market participants;

(b) the security of the smart meters and data communication, and the privacy of final customers, shall be ensured in compliance with relevant Union data protection and privacy legislation;

(c) in the case of electricity and on request of the final customer, meter operators are required to ensure that the meter or meters can account for electricity put into the grid from the final customer's premises;

(d) if final customers request it, metering data on their electricity input and off-take shall be made available to them or to a third party acting on behalf of the final customer in an easily understandable format that they can use to compare deals on a like-for-like basis;

(e) appropriate advice and information shall be given to customers at the time of installation of smart meters, notably about their full potential with regard to meter reading management and the monitoring of energy consumption.

(5) Where heating and cooling or hot water are supplied to a building from a district heating network or from a central source servicing multiple buildings, a heat or hot water meter shall be installed at the heating exchanger or point of delivery.

In multi-apartment and multi-purpose buildings with a central heating and, or cooling source or supplied from a district heating network or from a central source serving multiple buildings, individual consumption meters shall also be installed by the 31st December 2016 to measure the consumption of heat or cooling or hot water for each unit where technically feasible and cost efficient. Where the use of individual meters is not technically feasible or not cost-efficient, to measure heating, individual heat cost allocators shall be used for measuring heat consumption at each radiator, unless it is shown by the energy supplier, and subject to the approval of the Authority, that the installation of such heat cost allocators would not be cost-efficient. In those cases, alternative cost-efficient methods of heat consumption measurement may be considered.

Where multi-apartment buildings are supplied from district

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heating or cooling, or where own common heating or cooling systems for such buildings are prevalent, to ensure transparency and accuracy of accounting for individual consumption, the Authority may introduce transparent rules on the allocation of the cost of thermal or hot water consumption in such buildings. Where appropriate, such rules shall include guidelines on the way to allocate costs for heat and, or hot water that is used as follows:

- (a) hot water for domestic needs;
- (b) heat radiated from the building installation and for the purpose of heating the common areas (in case staircases and corridors are equipped with radiators);
- (c) for the purpose of heating apartments.

Use of other
meters.
S.L. 423.22;
S.L. 423.21

12. (1) Where final customers do not have smart meters referred to in the Electricity Market Regulations and the Natural Gas Market Regulations, by not later than the 31st December 2014, billing information shall be accurate and based on actual consumption, in accordance with item 1.1 of the Sixth Schedule, for all the sectors covered by these regulations, including energy distributors, distribution system operators and retail energy sales companies, where this is technically possible and economically justified. This obligation may be fulfilled by a system of regular self-reading by the final customers whereby they communicate readings from their meter to the energy supplier. Only when the final customer has not provided a meter reading for a given billing interval shall billing be based on estimated consumption or a flat rate.

S.L. 423.22;
S.L. 423.21

(2) Meters installed in accordance with the Electricity Market Regulations and the Natural Gas Market Regulations shall enable accurate billing information based on actual consumption. Final customers shall have the possibility of easy access to complementary information on historical consumption allowing detailed self-checks. Complementary information on historical consumption shall include:

- (a) cumulative data for at least the three previous years or the period since the start of the supply contract if this is shorter. The data shall correspond with the intervals for which frequent billing information has been produced; and
- (b) detailed data according to the time of use for any day, week, month and year. These data shall be made available to the final customer via internet or the meter interface for the period of at least 24 previous months or the period since the start of the supply contract if this is shorter.

(3) Independently of whether smart meters have been installed or not, energy suppliers shall:

(a) to the extent that information on their energy billing and historical consumption of final customers is available, on the request of the final customer make such information available to an energy service provider designated by the final customer;

(b) offer to final customers the option of electronic billing information and bills. Customers shall receive on request a clear and understandable explanation of how their bill was derived, especially where bills are not based on actual consumption;

(c) make available appropriate information with the bill to provide final customers with a comprehensive account of current energy costs, in accordance with the Sixth Schedule;

(d) on request of the final customer, not consider the information contained in these bills to constitute a request for payment. Suppliers of energy sources shall offer flexible arrangements for actual payments;

(e) provide to consumers on demand, information and estimates for energy costs in a timely manner and in an easily understandable format enabling consumers to compare deals on a like-for-like basis.

13. (1) Energy suppliers shall ensure that final customers receive all their bills and billing information for energy consumption free of charge. Final customers shall also have access to their consumption data in an appropriate way and free of charge.

Bills and information to be free of charge.

(2) Notwithstanding sub-regulation (1), the distribution of costs of billing information for the individual consumption of heating and cooling in multi-apartment and multi-purpose buildings pursuant to regulation 11(5) shall be carried out on a non-profit basis. Costs resulting from the assignment of this task to a third party, such as a service provider or the local energy supplier, covering the measuring, allocation and accounting for actual individual consumption in such buildings, may be passed on to the final customers to the extent that such costs are reasonable.

14. (1) The Minister shall take appropriate measures to promote and facilitate an efficient use of energy by small energy customers, including domestic customers. These measures may be part of a national strategy.

Minister may promote efficient use of energy.

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(2) For the purposes of sub-regulation (1), these measures shall include one or more of the elements listed below:

(a) a range of instruments and policies to promote behavioural change which may include:

- (i) fiscal incentives;
- (ii) access to finance, grants or subsidies;
- (iii) information provision;
- (iv) exemplary projects;
- (v) workplace activities;

(b) ways and means to engage consumers and consumer organisations during the possible roll-out of smart meters through communication of:

- (i) cost-effective and easy-to-achieve changes in energy use;
- (ii) information on energy efficiency measures.

Administrative
fine.

15. The Authority may impose an administrative fine not exceeding one hundred thousand euro (€100,000) for each contravention and, or six hundred euro (€600) for each day of non-compliance, from the date of the decision given by the Authority upon any person who infringes any provision of these regulations or who fails to comply with any directive or decision given by the Authority in ensuring compliance with these regulations.

Comprehensive
assessment of
high-efficiency
cogeneration,
etc.

16. (1) By the 31st of December 2015 the Minister shall carry out a comprehensive assessment of the potential for the application of high-efficiency cogeneration and efficient district heating and cooling, containing the information set out in the Seventh Schedule to these regulations. The Minister shall notify such comprehensive assessment to the Commission by the 31st December 2015. If an equivalent assessment has already been carried out, the Minister shall notify an equivalent assessment to the Commission.

(2) The comprehensive assessment shall take full account of the analysis of the national potentials for high-efficiency cogeneration carried out under Directive 2004/8/EC. The assessment shall be updated and notified to the Commission every five years, subject to a request by the Commission at least one year before the due date.

(3) The Minister shall adopt policies which encourage that the potential of using efficient heating and cooling systems, in particular those using high efficiency cogeneration, is duly taken into account at local and regional levels. Account shall be taken of the potential for developing local and regional heat markets.

(4) For the purpose of the assessment referred to in sub-regulation (1), the Minister shall carry out a cost-benefit analysis covering the territory based on climate conditions, economic feasibility and technical suitability in accordance with Part 1 of the Eighth Schedule. The cost-benefit analysis shall be capable of facilitating the identification of the most resource and cost-efficient solutions to meeting heating and cooling requirements. The cost-benefit analysis may be part of an environmental assessment, under the Strategic Environmental Assessment Regulations for the assessment. S.L. 504.102

(5) Where the assessments referred to in sub-regulation (1) and the analysis mentioned in sub-regulation (4) identify a potential for the application of high-efficiency cogeneration and, or efficient district heating and cooling whose benefits exceed the costs, the Minister shall take adequate measures for efficient district heating and cooling infrastructure to be developed and, or to accommodate the development of high-efficiency cogeneration and the use of heating and cooling from waste heat and renewable energy sources in accordance with sub-regulations (1), (6) and (10). Where the assessment referred to in sub-regulation (1) and the analysis referred to in sub-regulation (4) do not identify a potential whose benefits exceed the costs, including the administrative costs of carrying out the cost-benefit analysis referred to in sub-regulation (6), installations shall be exempted from the requirements laid down in those sub-regulations.

(6) A cost-benefit analysis in accordance with Part 2 of the Eighth Schedule shall be carried out by the project promoter when, after the 5th June 2014:

(a) a new thermal electricity generation installation with a total thermal input exceeding 20 MW is planned, to assess the cost and benefits of providing for the operation of the installation as high-efficiency cogeneration installation;

(b) an existing thermal electricity generation installation with a total thermal input exceeding 20 MW is substantially refurbished, to assess the cost and benefits of converting it to high efficiency cogeneration;

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(c) an industrial installation with a total thermal input exceeding 20 MW generating waste heat at a useful temperature level is planned or substantially refurbished, to assess the cost and benefits of utilising the waste heat to satisfy economically justified demand, including through cogeneration, and of the connection of this installation to a district heating and cooling network;

(d) a new district heating and cooling network is planned or in an existing district heating or cooling network a new energy production installation with a total thermal input exceeding 20 MW is planned or an existing such installation is to be substantially refurbished, to assess the cost and benefits of utilising the waste heat from nearby industrial installations.

S.L. 504.109 (7) The fitting of equipment to capture carbon dioxide produced by a combustion installation with a view to its being geologically stored as provided for in the Geological Storage of Carbon Dioxide Regulations shall not be considered as refurbishment for the purpose of sub-regulation (6)(b), (c) and (d). The cost-benefit analysis referred to in sub-regulation (6)(c) and (d) shall be carried out in co-operation with the companies responsible for the operation of the district heating and cooling networks.

(8) The following installations shall be exempt from sub-regulation (6):

(a) those peak load and back-up electricity generating installations which are planned to operate under 1,500 operating hours per year as a rolling average over a period of five years, based on a verification procedure established by the Authority ensuring that this exemption criterion is met;

(b) nuclear power installations;

S.L. 504.109 (c) installations that need to be located close to a geological storage site approved under the Geological Storage of Carbon Dioxide Regulations.

(9) The Minister may also lay down thresholds, expressed in terms of the amount of available useful waste heat, the demand for heat or the distances between industrial installations and district heating networks, for exempting individual installations from the provisions of sub-regulation (6)(c) and (d).

The Minister shall notify to the Commission exemptions adopted under this sub-regulation by the 31st of December 2013. Any subsequent changes to such exemptions thereafter shall also be

notified by the Minister to the Commission.

(10) Authorisation criteria as referred to in Article 7 of Directive 2009/72/EC, or equivalent permit criteria, shall:

(a) take into account the outcome of the comprehensive assessments referred to in sub-regulation (1);

(b) ensure that the requirements of sub-regulation (6) are fulfilled; and

(c) take into account the outcome of cost-benefit analysis referred to in sub-regulation (6).

(11) The Authority may exempt individual installations from being required, by the authorisation and permit criteria referred to in sub-regulation (10), to implement options whose benefits exceed their costs, if there are imperative reasons of law, ownership or finance for so doing. In these cases the Minister shall submit a motivated notification of his decision to the Commission within three months of the date of the taking of the Minister's decision.

(12) Sub-regulations (6), (8), (10) and (11) shall apply to installations covered by the Industrial Emissions (Large Combustion Plants) Regulations without prejudice to the requirements of those regulations. S.L. 504.93A

(13) On the basis of the harmonised efficiency reference values referred to in paragraph (f) of the Second Schedule, the Authority shall ensure that the origin of electricity produced from high-efficiency cogeneration can be guaranteed according to objective, transparent and non-discriminatory criteria laid down by the Minister. The Authority shall ensure that this guarantee of origin complies with the requirements and contains at least the information specified in the Ninth Schedule.

The Authority shall mutually recognise guarantees of origin from other Member States, exclusively as proof of the information referred to in this sub-regulation. Any refusal to recognise a guarantee of origin as such proof, in particular for reasons relating to the prevention of fraud, must be based on objective, transparent and non-discriminatory criteria. The Minister shall notify the Commission of such refusal and its justification.

(14) Any available support for cogeneration shall be subject to the electricity produced originating from high-efficiency cogeneration and the waste heat being effectively used to achieve primary energy savings. Public support to cogeneration and district

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heating generation and networks shall be subject to State aid rules, where applicable.

Duties of the Authority.

S.L. 423.22;
S.L. 423.21

17. (1) The Authority shall pay due regard to energy efficiency in carrying out the regulatory tasks specified in the Electricity Market Regulations and the Natural Gas Market Regulations regarding its decisions on the operation of the gas and electricity infrastructure. The Authority shall in particular through the development of network tariffs and regulations, within the framework of the Electricity Market Regulations and taking into account the costs and benefits of each measure, provide incentives for grid operators to make available system services to network users permitting them to implement energy efficiency improvement measures in the context of the continuing deployment of smart grids. Such systems services may be determined by the system operator and shall not adversely impact the security of the system. For electricity, network regulation, and network tariffs shall fulfil the criteria in the Tenth Schedule, taking into account guidelines and codes developed pursuant to Regulation 714/2009.

(2) By the 30th June 2015, distribution system operators shall ensure that:

(a) an assessment is undertaken of the energy efficiency potentials of their gas and electricity infrastructure, notably regarding transmission, distribution, load management and interoperability, and connection to energy generating installations, including access possibilities for micro energy generators;

(b) concrete measures and investments are identified for the introduction of cost-effective energy efficiency improvements in the network infrastructure, with a timetable for their introduction.

(3) The Authority may permit components of schemes and tariff structures with a social aim for net-bound energy transmission and distribution:

Provided that any disruptive effects on the transmission and distribution system are kept to the minimum necessary and are not disproportionate to the social aim.

(4) The distribution system operator, subject to the approval of the Authority, shall remove those incentives in transmission and distribution tariffs that are detrimental to the overall efficiency (including energy efficiency) of the generation, transmission, distribution and supply of electricity or those that might hamper participation of demand response, in balancing markets and ancillary services procurement. Network operators shall be incentivised to improve efficiency in infrastructure design and operation, and, within the framework of the Electricity Market Regulations, that tariffs allow suppliers to improve consumer participation in system efficiency, including demand response depending on national circumstances. S.L. 423.22

(5) Without prejudice to regulation 25(1) of the Electricity Market Regulations and taking into account the provisions of Article 15 of Directive 2009/72/EC and the need to ensure continuity in heat supply, and subject to requirements relating to the maintenance of the reliability and safety of the electricity grid, based on transparent and non-discriminatory criteria defined by the transmission system operator and distribution system operator and approved by the Authority, the transmission system operator and distribution system operator shall, when they are in charge of dispatching the generating installations in their territory: S.L. 423.22

(a) guarantee the transmission and distribution of electricity from high-efficiency cogeneration;

(b) provide priority access to the grid of electricity from high efficiency cogeneration;

(c) when dispatching electricity generating installations, provide priority dispatch of electricity from high efficiency cogeneration in so far as the secure operation of the national electricity system permits.

(6) Rules relating to the ranking of the different access and dispatch priorities granted in electricity systems shall be clearly explained in detail and published. When providing priority access or dispatch for high efficiency cogeneration, the transmission system operator and the distribution system operator may, subject to the approval of the Authority, set rankings as between, and within different types of, renewable energy and high efficiency cogeneration and shall in any case ensure that priority access or dispatch for energy from variable renewable energy sources is not hampered.

In addition to the obligations laid down in sub-regulation (5), transmission system operators and distribution system operators

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shall comply with the requirements set out in the Tenth Schedule.

The transmission system operator and the distribution system operator shall facilitate the connection to the grid system of electricity produced from high-efficiency cogeneration from small scale and micro cogeneration units. The Authority shall, where appropriate, take steps to encourage network operators to adopt a simple notification "install and inform" process for the installation of micro cogeneration units to simplify and shorten authorisation procedures for individual citizens and installers.

(7) Subject to the requirements relating to the maintenance of the reliability and safety of the grid, where this is technically and economically feasible with the mode of operation of the high-efficiency cogeneration installation, high-efficiency cogeneration operators shall offer balancing services and other operational services at the level of transmission system operator or distribution system operator. The transmission system operator and the distribution system operator shall ensure that such services are part of a services bidding process which is transparent, non-discriminatory and open to scrutiny.

Where appropriate, the transmission system operator and the distribution operator shall encourage high-efficiency cogeneration to be sited close to areas of demand by reducing the connection and use-of-system charges.

(8) Producers of electricity from high-efficiency cogeneration wishing to be connected to the grid may issue a call for tender for the connection work.

(9) The Authority shall encourage demand side resources, such as demand response, to participate alongside supply in wholesale and retail markets. Subject to technical constraints inherent in managing networks, the transmission system operator and the distribution system operator, in meeting requirements for balancing and ancillary services, shall treat demand response providers, including aggregators, in a non-discriminatory manner, on the basis of their technical capabilities.

(10) Subject to technical constraints inherent in managing networks, the transmission system operator and the distribution system operator shall, subject to the approval of the Authority, promote demand response's access to and participation in balancing, reserve and other system services markets, and the transmission and distribution system operator shall in close cooperation with demand service providers and consumers, define the technical modalities for

participation in those markets on the basis of the technical requirements of those markets and the capabilities of demand response. Such specifications shall include the participation of aggregators.

(11) When reporting under Directive 2010/75/EU, and without prejudice to Article 9(2) of that Directive, the authority responsible for reporting under Directive 2010/75/EU shall consider including information on energy efficiency levels of installations undertaking the combustion of fuels with total rated thermal input of 50 MW or more in the light of the relevant best available techniques developed in accordance with Directive 2010/75/EU and Directive 2008/1/EC.

The authority responsible for reporting under Directive 2010/75/EU may encourage operators of installations referred to in this sub-regulation undertaking the combustion of fuels with total rated thermal input of 50 MW or more to improve their annual average net operational rates.

18. (1) Certification and, or accreditation schemes and, or equivalent qualification schemes, including, where necessary, suitable training programmes, shall be made available by the 1st January 2015 for providers of energy services, energy audits, energy managers and installers of energy-related building elements where the national level of technical competence, objectivity and reliability is insufficient.

Qualification schemes to be made available.

(2) The Minister shall ensure that the schemes referred to in sub-regulation (1) provide transparency to consumers, are reliable and contribute to national energy efficiency objectives.

(3) The Minister shall make publicly available the certification and, or accreditation schemes or equivalent qualification schemes referred to in sub-regulation (1). The Minister shall take appropriate measures to make consumers aware of the availability of qualification and, or certification schemes, in accordance with regulation 20(1).

19. (1) The Building Regulation Board, the Minister, the Authority and entrusted parties shall provide information on available energy efficiency mechanisms and financial and legal frameworks, which information shall be transparent and widely disseminated to all relevant market actors, such as consumers, builders, architects, engineers, environmental and energy auditors and installers of building elements and shall provide information to banks and other financial institutions on possibilities of participating, including through the creation of public and, or private partnerships, in the financing of energy efficiency improvement measures.

Information to be provided by relevant authorities.

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(2) The Minister shall establish appropriate conditions for market operators to provide adequate and targeted information and advice to energy consumers on energy efficiency.

(3) The entrusted parties, with the participation of stakeholders, including local and regional authorities, shall promote suitable information, awareness-raising and training initiatives to inform citizens of the benefits and practicalities of taking energy efficiency improvement measures.

Energy services
market and
access for
SMEs.

20. (1) The Minister shall promote the energy services market and access for small and medium-sized enterprises to this market by:

(a) disseminating clear and easily accessible information on:

(i) available energy service contracts and clauses that should be included in such contracts to guarantee energy savings and final customers' rights;

(ii) financial instruments, incentives, grants and loans to support energy efficiency service projects;

(b) encouraging the development of quality labels, *inter alia* by trade associations;

(c) making publicly available and regularly updating a list of available energy service providers who are qualified and, or certified and their qualifications and, or certifications in accordance with regulation 18, or provide an interface where energy service providers can provide information;

(d) supporting the public sector in taking up energy service offers, notably for building refurbishment, by:

(i) providing model contracts for energy performance contracting which at least include the items listed in the Twelfth Schedule;

(ii) providing information on best practices for energy performance contracting, including, if available, cost and benefit analysis using a life-cycle approach;

(e) providing a qualitative review in the framework of the National Energy Efficiency Action Plan regarding the current and future development of the energy services market.

(2) The Minister shall support the proper functioning of the energy services market, where appropriate, by:

(a) identifying and publicising the point of contact where final customers can obtain the information referred to in sub-regulation (1);

(b) taking, if necessary, measures to remove the regulatory and non-regulatory barriers that impede the uptake of energy performance contracting and other energy efficiency service models for the identification and, or implementation of energy saving measures;

(c) considering putting in place or assigning the role of an independent mechanism, such as an ombudsman, to ensure the efficient handling of complaints and out-of-court settlement of disputes arising from energy service contracts;

(d) enabling independent market intermediaries to play a role in stimulating market development on the demand and supply sides.

(3) Energy distributors, distribution system operators and retail energy sales companies shall refrain from any activities that may impede the demand for and delivery of energy services or other energy efficiency improvement measures, or hinder the development of markets for energy services or other energy efficiency improvement measures, including foreclosing the market for competitors or abusing dominant positions.

21. (1) Without prejudice to the basic principles of the property and tenancy laws, the Minister shall evaluate and if necessary take appropriate measures to remove regulatory and non-regulatory barriers to energy efficiency, notably as regards:

Removal of all regulatory barriers to energy efficiency.

(a) the split of incentives between the owner and the tenant of a building or among owners, with a view to ensuring that these parties are not deterred from making efficiency-improving investments that they would otherwise have made by the fact that they will not individually obtain the full benefits or by the absence of rules for dividing the costs and benefits between them, including national rules and measures regulating multi-owner property decision-making processes;

(b) legal and regulatory provisions, and administrative practices, regarding public purchasing and annual budgeting and accounting, with a view to ensuring that individual public bodies are not deterred from making investments in improving

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energy efficiency and minimising expected life-cycle costs and from using energy performance contracting and other third-party financing mechanisms on a long-term contractual basis.

Such measures to remove barriers may include providing incentives, repealing or amending legal or regulatory provisions, or adopting guidelines and interpretative communications, or simplifying administrative procedures. These measures may be combined with the provision of education, training and specific information and technical assistance on energy efficiency.

(2) The evaluation of barriers and measures referred to in sub-regulation (1) shall be notified to the Commission in the first National Energy Efficiency Action Plan referred to in regulation 24(2).

Minister to facilitate establishment of financing funds.

22. (1) Without prejudice to Articles 107 and 108 of the Treaty, the Minister shall facilitate the establishment of financing facilities, or use of existing ones, for energy efficiency improvement measures to maximise the benefits of multiple streams of financing.

(2) The Minister may set up an Energy Efficiency National Fund. The purpose of this fund shall be to support national energy efficiency initiatives.

(3) The obligations set out in regulation 5(1) may be fulfilled by annual contributions to the Energy Efficiency National Fund of an equal amount to the investments required to achieve the obligations.

(4) Obligated parties can fulfill their obligations set out in regulation 7(1) by contributing annually to the Energy Efficiency National Fund an equal amount to the investments required to achieve their obligations.

(5) Revenues from annual emission allocations under Decision No 406/2009/EC may be used for the development of innovative financing mechanisms to give practical effect to the objective in regulation 4 of improving the energy performance of buildings.

Conversion factors.

23. For the purpose of comparison of energy savings and conversion to a comparable unit, the conversion factors in the Fourth Schedule shall apply unless the use of other conversion factors can be justified.

Progress report on national energy efficiency targets.

24. (1) The Minister shall prepare by the 15th of April of each year, a report on the progress achieved towards national energy efficiency targets, in accordance with Part I of the Thirteenth Schedule. The report may form part of the National Reform Programmes referred to in Council Recommendation 2010/410/EU

on broad guidelines for the economic policies of the Member States and of the Union.

(2) By the 30th April 2014, and every three years thereafter, the Minister shall prepare a National Energy Efficiency Action Plan. The Plan shall cover significant energy efficiency improvement measures and expected and, or achieved energy savings, including those in the supply, transmission and distribution of energy as well as energy end-use in view of achieving the national energy efficiency targets referred to in regulation 3(1). The plan shall be complemented with updated estimates of expected overall primary energy consumption in 2020, as well as estimated levels of primary energy consumption in the sectors indicated in Part I of the Thirteenth Schedule.

(3) The Authority shall prepare before the 30th April of each year statistics on national electricity and heat production from high and low efficiency cogeneration, in accordance with the methodology shown in the First Schedule, in relation to total heat and electricity capacities. The Authority shall also prepare annual statistics on cogeneration heat and electricity capacities and fuels for cogeneration, and on district heating and cooling production and capacities, in relation to total heat and electricity capacities. The Authority shall prepare statistics on primary energy savings achieved by application of cogeneration in accordance with the methodology shown in the Second Schedule.

25. Any person who -

Offences and penalties.

(a) wilfully or through negligence acts in breach of any provision of these regulations;

(b) fails to comply with any lawful order by an inspector, employee or officer of the Authority in execution of their duties in terms of these regulations;

(c) makes a declaration for any of the purposes of these regulations which is false, misleading or incorrect in any material respect,

shall be guilty of an offence against these regulations and shall, on conviction, be liable to a fine (*multa*) of not more than sixty-nine thousand and eight hundred and eighty-one euro and twenty cents (69,881.20), or to one thousand and three hundred and ninety-seven euro and sixty-two cents (1,397.62) for each day during which the offence persists.

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Revokes the
Cogeneration
Regulations,
2007, and the
Energy End-use
Efficiency and
Energy Services
Regulations,
2008.
L.N. 2 of 2007
L.N. 289 of
2008

26. (1) The Cogeneration Regulations, 2007 are hereby revoked.

(2) The Energy End-use Efficiency and Energy Services Regulations, 2008, are also hereby being revoked except for regulation 4(1) to (4) thereof and the First, Third and Fourth Schedules thereof. Regulation 4(1) to (4) and the First, Third and Fourth Schedules of the Energy End-use Efficiency and Energy Services Regulations shall be revoked with effect from the 1st January 2017.

First Schedule

Regulation 24(3)

General principles for the calculation of electricity from cogeneration

PART I. General principles

Values used for calculation of electricity from cogeneration shall be determined on the basis of the expected or actual operation of the unit under normal conditions of use. For micro-cogeneration units the calculation may be based on certified values.

(a) Electricity production from cogeneration shall be considered equal to total annual electricity production of the unit measured at the outlet of the main generators.

(i) in cogeneration units of type (b), (d), (e), (f), (g) and (h) referred to in Part II with an annual overall efficiency at a level of at least 75%, and

(ii) in cogeneration units of type (a) and (c) referred to in Part II with an annual overall efficiency at a level of at least 80%.

(b) In cogeneration units with an annual overall efficiency below the value referred to in paragraph (a)(i) (cogeneration units of type (b), (d), (e), (f), (g) and (h) referred to in Part II) or with an annual overall efficiency below the value referred to in paragraph (a)(ii) (cogeneration units of type (a) and (c) referred to in Part II) cogeneration is calculated according to the following formula:

$$E_{\text{CHP}} = H_{\text{CHP}} * C$$

where:

E_{CHP} is the amount of electricity from cogeneration

C is the power to heat ratio

H_{CHP} is the amount of useful heat from cogeneration (calculated for this purpose as total heat production minus any heat produced in separate boilers or by live steam extraction from the steam generator before the turbine).

The calculation of electricity from cogeneration must be based on the actual power to heat ratio. If the actual power to heat ratio of a cogeneration unit is not known, the following default values may be used, notably for statistical purposes, for units of type (a), (b), (c), (d) and (e) referred to in Part II provided that the calculated cogeneration electricity is less or equal to total electricity production of the unit:

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Type of the unit	Default power to heat ratio, C
Combined cycle gas turbine with heat recovery	0,95
Steam back pressure turbine	0,45
Steam condensing extraction turbine	0,45
Gas turbine with heat recovery	0,55
Internal combustion engine	0,75

If the Authority introduces default values for power to heat ratios for units of type (f), (g), (h), (i), (j) and (k) referred to in Part II, such default values shall be published and shall be notified to the Commission.

(c) If a share of the energy content of the fuel input to the cogeneration process is recovered in chemicals and recycled, this share can be subtracted from the fuel input before calculating the overall efficiency used in paragraphs (a) and (b) of this Schedule.

(d) The Authority may determine the power to heat ratio as the ratio between electricity and useful heat when operating in cogeneration mode at a lower capacity using operational data of the specific unit.

(e) The Authority may use other reporting periods than one year for the purpose of the calculations according to paragraphs (a) and (b) of this Schedule.

PART II. Cogeneration technologies covered by these regulations

(a) Combined cycle gas turbine with heat recovery;

(b) Steam backpressure turbine;

(c) Steam condensing extraction turbine;

(d) Gas turbine with heat recovery;

(e) Internal combustion engine;

(f) Microturbines;

(g) Stirling engines;

(h) Fuel cells;

(i) Steam engines;

(j) Organic Rankine cycles;

(k) Any other type of technology or combination thereof falling under the definition "cogeneration" laid down in regulation 2.

When implementing and applying the general principles for the calculation of electricity from cogeneration, the Minister shall use the detailed Guidelines established by Decision 2008/952/EC.

Second Schedule

Regulations 16(13) and 24(3)

Methodology for determining the efficiency of the cogeneration process

Values used for calculation of efficiency of cogeneration and primary energy savings shall be determined on the basis of the expected or actual operation of the unit under normal conditions of use.

(a) High-efficiency cogeneration

For the purpose of these regulations high-efficiency cogeneration shall fulfil the following criteria:

(i) cogeneration production from cogeneration units shall provide primary energy savings calculated according to paragraph (b) of this Schedule of at least 10% compared with the references for separate production of heat and electricity;

(ii) production from small scale and micro cogeneration units providing primary energy savings may qualify as high-efficiency cogeneration.

(b) Calculation of primary energy savings

The amount of primary energy savings provided by cogeneration production defined in accordance with the First Schedule shall be calculated on the basis of the following formula:

$$PES = \left(1 - \frac{1}{\frac{CHP H\eta}{Ref H\eta} + \frac{CHP E\eta}{Ref E\eta}} \right) \times 100 \%$$

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Where:

PES is primary energy savings.

CHP H_{η} is the heat efficiency of the cogeneration production defined as annual useful heat output divided by the fuel input used to produce the sum of useful heat output and electricity from cogeneration.

Ref H_{η} is the efficiency reference value for separate heat production.

CHP E_{η} is the electrical efficiency of the cogeneration production defined as annual electricity from cogeneration divided by the fuel input used to produce the sum of useful heat output and electricity from cogeneration. Where a cogeneration unit generates mechanical energy, the annual electricity from cogeneration may be increased by an additional element representing the amount of electricity which is equivalent to that of mechanical energy. This additional element will not create a right to issue guarantees of origin in accordance with regulation 16(13).

Ref E_{η} is the efficiency reference value for separate electricity production.

(c) Calculations of energy savings using alternative calculation

The Minister may calculate primary energy savings from a production of heat and electricity and mechanical energy as below without using the First Schedule to exclude the non-cogenerated heat and electricity parts of the same process. Such a production can be regarded as high-efficiency cogeneration provided it fulfils the efficiency criteria in paragraph (a) of this Schedule and, for cogeneration units with an electrical capacity larger than 25 MW, the overall efficiency is above 70%. However, specification of the quantity of electricity from cogeneration produced in such a production, for issuing a guarantee of origin and for statistical purposes, shall be determined in accordance with the First Schedule.

If primary energy savings for a process are calculated using alternative calculation as above the primary energy savings shall be calculated using the formula in paragraph (b) of this Schedule replacing: 'CHP H_{η} ' with ' H_{η} ' and 'CHP E_{η} ' with ' E_{η} ', where:

H_{η} shall mean the heat efficiency of the process, defined as the annual heat output divided by the fuel input used to produce the sum of heat output and electricity output.

E_{η} shall mean the electricity efficiency of the process, defined as the annual electricity output divided by the fuel input used to produce the sum of heat output and electricity output. Where a cogeneration unit generates mechanical energy, the annual electricity from cogeneration maybe increased by an additional element representing the amount of electricity which is equivalent to that of mechanical energy. This additional element will not create a right to issue guarantees of origin in accordance with regulation 16(13).

(d) The Authority may use other reporting periods than one year for the purpose of the calculations according to paragraphs (b) and (c) of this Schedule.

(e) For micro-cogeneration units the calculation of primary energy savings may be based on certified data.

(f) Efficiency reference values for separate production of heat and electricity

The harmonised efficiency reference values shall consist of a matrix of values differentiated by relevant factors, including year of construction and types of fuel, and must be based on a well-documented analysis taking, *inter alia*, into account data from operational use under realistic conditions, fuel mix and climate conditions as well as applied cogeneration technologies.

The efficiency reference values for separate production of heat and electricity in accordance with the formula set out in paragraph (b) shall establish the operating efficiency of the separate heat and electricity production that cogeneration is intended to substitute.

The efficiency reference values shall be calculated according to the following principles:

1. For cogeneration units as defined in regulation 2 the comparison with separate electricity production shall be based on the principle that the same fuel categories are compared.

2. Each cogeneration unit shall be compared with the best available and economically justifiable technology for separate production of heat and electricity on the market in the year of construction of the cogeneration unit.

3. The efficiency reference values for cogeneration units older than 10 years of age shall be fixed on the reference values of units of 10 years of age.

4. The efficiency reference values for separate electricity production and heat production shall reflect the climatic differences between Member States.

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Third Schedule

Regulation 6(1)

Energy efficiency requirements for purchasing products, services
and buildings by Government

Government when purchasing products, services or buildings, insofar as this is consistent with cost-effectiveness, economical feasibility, wider sustainability, technical suitability, as well as sufficient competition, shall:

(a) where a product is covered by a delegated act adopted under Directive 2010/30/EU or Directive 92/75/EEC, purchase only the products that comply with the criterion of belonging to the highest energy efficiency class possible in the light of the need to ensure sufficient competition;

(b) where a product not covered under paragraph (a) of this Schedule is covered by an implementing measure under the Framework for the Setting of Ecodesign Requirements for Energy-Related Products Regulations, (S.L. 427.64) adopted after the entry into force of these regulations, purchase only products that comply with energy efficiency benchmarks specified in that implementing measure;

(c) purchase office equipment products covered by Council Decision 2006/1005/EC that comply with energy efficiency requirements not less demanding than those listed in Annex C of the Agreement attached to that Decision;

(d) purchase only tyres that comply with the criterion of having the highest fuel energy efficiency class, as defined by Regulation (EC) No 1222/2009. This requirement shall not prevent public bodies from purchasing tyres with the highest wet grip class or external rolling noise class where justified by safety or public health reasons;

(e) require in their tenders for service contracts that service providers use, for the purposes of providing the services in question, only products that comply with the requirements referred to in paragraphs (a) to (d) of this Schedule, when providing the services in question. This requirement shall apply only to new products purchased by service providers partially or wholly for the purpose of providing the service in question;

(f) purchase, or make new rental agreements for, only buildings that comply at least with the minimum energy performance requirements referred to in regulation 5(1) unless the purpose of the purchase is:

(i) deep renovation or demolition;

(ii) the public body intends to re-sell the building without

using it for its own purposes; or

(iii) to preserve it as a building officially protected as part of a designated environment, or because of its special architectural or historical merit.

Compliance with these requirements shall be verified by means of the energy performance certificates referred to in regulation 12 of the Energy Performance of Buildings Regulations. (S.L. 513.01)

Fourth Schedule

Regulations 7(6), 9(5)(d), 23

Energy content of selected fuels for end use - conversion table*

Energy commodity	kJ (NCV)	kgoe (NCV)	kWh (NCV)
1 kg coke	28500	0,676	7,917
1 kg hard coal	17200 - 30700	0,411 - 0,733	4,778 - 8,528
1 kg brown coal briquettes	20000	0,478	5,556
1 kg black lignite	10500 - 21000	0,251 - 0,502	2,917 - 5,833
1 kg brown coal	5600 - 10500	0,134 - 0,251	1,556 - 2,917
1 kg oil shale	8000 - 9000	0,191 - 0,215	2,222 - 2,500
1 kg peat	7800 - 13800	0,186 - 0,330	2,167 - 3,833
1 kg peat briquettes	16000 - 16800	0,382 - 0,401	4,444 - 4,667
1 kg residual fuel oil (heavy oil)	40000	0,955	11,111
1 kg light fuel oil	42300	1,010	11,750
1 kg motor spirit (petrol)	44000	1,051	12,222
1 kg paraffin	40000	0,955	11,111
1 kg liquefied petroleum gas	46000	1,099	12,778
1 kg natural gas [1]	47200	1,126	13,10
1 kg liquefied natural gas	45190	1,079	12,553
1 kg wood (25% humidity) [2]	13800	0,330	3,833
1 kg pellets/wood bricks	16800	0,401	4,667
1 kg waste	7400 - 10700	0,177 - 0,256	2,056 - 2,972
1 MJ derived heat	1000	0,024	0,278
1 kWh electrical energy	3600	0,086	1 [3]

Source: Eurostat.

[1] 93 % methane.

[2] The Minister may apply other values depending on the type of wood most used in Malta.

* The Minister may apply different conversion factors if these can be justified.

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[3] Applicable when energy savings are calculated in primary energy terms using a bottom-up approach based on final energy consumption. For savings in kWh electricity the Minister may apply a default coefficient of 2,5. The Minister may apply a different coefficient provided when justifiable.

Fifth Schedule

Regulation 7(1) and (7), 9(1), (2), (3), (4), (5)(e) and (f),
10(10) and (11)

Part A

Common methods and principles for calculating the impact of energy efficiency obligations schemes or other policy measures under regulation 7(1) and (3), regulation 9(1), (2), (3) and (4) and regulation 22(4)

1. Methods for calculating energy savings for the purposes of regulation 7(1) and (3), regulation 9(3)(b), (c), (d), (e) and (f) and regulation 22(4).

Obligated, participating or entrusted parties or implementing public authorities may use one or more of the following methods for calculating energy savings:

(a) deemed savings, by reference to the results of previous independently monitored energy improvements in similar installations. The generic approach is termed "*ex-ante*";

(b) metered savings, whereby the savings from the installation of a measure, or package of measures, is determined by recording the actual reduction in energy use, taking due account of factors such as additionality, occupancy, production levels and the weather, which may affect consumption. The generic approach is termed "*ex-post*";

(c) scaled savings, whereby engineering estimates of savings are used. This approach may only be used where establishing robust measured data for a specific installation is difficult or disproportionately expensive, e.g. replacing a compressor or electric motor with a different kWh rating than that for which independent information on savings has been measured, or where they are carried out on the basis of nationally established methodologies and benchmarks by qualified or accredited experts that are independent of the obligated, participating or entrusted parties involved;

(d) surveyed savings, where consumers' response to advice, information campaigns, labelling or certification schemes, or smart metering is determined. This approach may only be used for savings resulting from

changes in consumer behaviour. It may not be used for savings resulting from the installation of physical measures.

2. In determining the energy saving for an energy efficiency measure for the purposes of regulation 7(1) and (3), regulation 9(3) (b), (c), (d), (e) and (f) and regulation 22(4) the following principles shall apply:

(a) credit may only be given for savings exceeding the following levels:

(i) EU emission performance standards for new passenger cars and new light commercial vehicles following the implementation of Regulation (EC) No 443/2009 and Regulation (EU) No 510/2011, respectively;

(ii) EU requirements relating to the removal from the market of certain energy related products following the implementation of implementing measures under Directive 2009/125/EC; and

(b) to account for climatic variations between regions, the Minister may choose to adjust the savings to a standard value or to accord different energy savings in accordance with the temperature variations between regions;

(c) the activities of the obligated, participating or entrusted party must be demonstrably material to the achievement of the claimed savings;

(d) savings from an individual action may not be claimed by more than one party;

(e) calculation of energy savings shall take into account the lifetime of savings. This may be done by counting the savings each individual action will achieve between its implementation date and the 31st December 2020. Alternatively, the Minister may adopt another method that is estimated to achieve at least the same total quantity of savings. When using other methods, the Minister shall ensure that the total amount of energy savings calculated with these other methods does not exceed the amount of energy savings that would have been the result of their calculation when counting the savings each individual action will achieve between its implementation date and the 31st December 2020. The first National Energy Efficiency Action Plan shall describe in detail in accordance with the Fourteenth Schedule, which other methods have been used and which provisions have been made to ensure this binding calculation requirement; and

(f) actions by obligated, participating or entrusted parties, either individually or together, which aim to result in lasting transformation of products, equipment, or markets to a higher level of energy efficiency are

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permitted; and

(g) in promoting the uptake of energy efficiency measures, quality standards for products, services and installation of measures shall be maintained. Where such standards do not exist, the Minister shall work with obligated, participating or entrusted parties to introduce them.

3. In determining the energy saving from policy measures applied under regulation 9(3)(a), the following principles shall apply:

(a) credit shall only be given for energy savings from taxation measures exceeding the minimum levels of taxation applicable to fuels as required in Directive 2003/96/EC or in Directive 2006/112/EC;

(b) recent and representative official data on price elasticities shall be used for calculation of the impact; and

(c) the energy savings from accompanying taxation policy instruments, including fiscal incentives or payment to a fund, shall be accounted separately.

4. Notification of methodology

The Minister shall notify the Commission of the proposed detailed methodology for operation of the energy efficiency obligation schemes and for the purposes of regulation 9(1), (2), (3), (4) and regulation 22(4). Except in the case of taxes, such notification shall include details of:

(a) obligated, participating or entrusted parties or implementing public authorities;

(b) target sectors;

(c) the level of the energy saving target or expected savings to be achieved over the whole and intermediate periods;

(d) the duration of the obligation period and intermediate periods;

(e) eligible measure categories;

(f) calculation methodology, including how additionality and materiality are to be determined and which methodologies and benchmarks are used for engineering estimates;

(g) lifetimes of measures;

(h) approach taken to address climatic variations within the Member State;

- (i) quality standards;
- (j) monitoring and verification protocols and how the independence of these from the obligated, participating or entrusted parties is ensured;
- (k) audit protocols; and
- (l) how the need to fulfil the requirement in regulation 7(1)(b), is taken into account.

In the case of taxes, the notification shall include details of:

- (a) target sectors and segment of taxpayers;
- (b) implementing public authority;
- (c) expected savings to be achieved;
- (d) duration of the taxation measure and intermediate periods; and
- (e) calculation methodology, including which price elasticities are used.

Part B

Minimum criteria for energy audits including those carried out as part of energy management systems

The energy audits referred to in regulation 10 shall be based on the following guidelines:

- (a) be based on up-to-date, measured, traceable operational data on energy consumption and (for electricity) load profiles;
- (b) comprise a detailed review of the energy consumption profile of buildings or groups of buildings, industrial operations or installations, including transportation;
- (c) build, whenever possible, on life-cycle cost analysis (LCCA) instead of Simple Payback Periods (SPP) in order to take account of long-term savings, residual values of long-term investments and discount rates;
- (d) be proportionate, and sufficiently representative to permit the drawing of a reliable picture of overall energy performance and the reliable identification of the most significant opportunities for improvement.

Energy audits shall allow detailed and validated calculations for the proposed measures so as to provide clear information on potential savings.

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The data used in energy audits shall be storable for historical analysis and tracking performance.

Sixth Schedule

Regulation 12(3)(c)

Minimum requirements for billing and billing information based on actual consumption

1. Minimum requirements for billing

1.1. Billing based on actual consumption

In order to enable final customers to regulate their own energy consumption, billing should take place on the basis of actual consumption at least once a year, and billing information should be made available at least quarterly, on request or where the consumers have opted to receive electronic billing or else twice yearly. Gas used only for cooking purposes may be exempted from this requirement.

1.2. Minimum information contained in the bill

Where appropriate, the following information shall be made available to final customers in clear and understandable terms in or with their bills, contracts, transactions, and receipts at distribution stations:

(a) current actual prices and actual consumption of energy;

(b) comparisons of the final customer's current energy consumption with consumption for the same period in the previous year, preferably in graphic form;

(c) contact information for final customers' organisations, energy agencies or similar bodies, including website addresses, from which information may be obtained on available energy efficiency improvement measures, comparative end-user profiles and objective technical specifications for energy-using equipment.

In addition, wherever possible and useful, the following information shall be made available to final customers in clear and understandable terms, in, with or signposted to within, their bills, contracts, transactions, and receipts at distribution stations;

(d) comparisons with an average normalised or benchmarked final

customer in the same user category.

1.3. Advice on energy efficiency accompanying bills and other feedback to final customers

When sending contracts and contract changes, and in the bills customers receive or through websites addressing individual customers, energy distributors, distribution system operators and retail energy sales companies shall inform their customers in a clear and understandable manner of contact information for independent consumer advice centres, energy agencies or similar institutions, including their internet addresses, where they can obtain advice on available energy efficiency measures, benchmark profiles for their energy consumption and technical specifications of energy using appliances that can serve to reduce the consumption of these appliances.

Seventh Schedule

Regulation 12(1)

Potential for efficiency in heating and cooling

1. The comprehensive assessment of national heating and cooling potentials referred to in regulation 12(1) shall include:

- (a) a description of heating and cooling demand;
- (b) a forecast of how this demand will change in the next 10 years, taking into account in particular the evolution of demand in buildings and the different sectors of industry;
- (c) a map of the national territory, identifying, while preserving, commercially sensitive information:
 - (i) heating and cooling demand points, including:
 - municipalities and conurbations with a plot ratio of at least 0.3, and
 - industrial zones with a total annual heating and cooling consumption of more than 20 GWh;
 - (ii) existing and planned district heating and cooling infrastructure;
 - (iii) potential heating and cooling supply points, including:

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- electricity generation installations with a total annual electricity production of more than 20 GWh, and
- waste incineration plants,
- existing and planned cogeneration installations, classified according to Part B of the Fifth Schedule, and district heating installations;

(d) identification of the heating and cooling demand that could be satisfied by high-efficiency cogeneration, including residential micro-cogeneration, and by district heating and cooling;

(e) identification of the potential for additional high-efficiency cogeneration, including from the refurbishment of existing and the construction of new generation and industrial installations or other facilities generating waste heat;

(f) identification of energy efficiency potentials of district heating and cooling infrastructure;

(g) strategies, policies and measures that may be adopted up to 2020 and up to 2030 to realise the potential in paragraph (e) in order to meet the demand in paragraph (d), including, where appropriate, proposals to:

(i) increase the share of cogeneration in heating and cooling production and in electricity production;

(ii) develop efficient district heating and cooling infrastructure to accommodate the development of high-efficiency cogeneration and the use of heating and cooling from waste heat and renewable energy sources;

(iii) encourage new thermal electricity generation installations and industrial plants producing waste heat to be located in sites where a maximum amount of the available waste heat will be recovered to meet existing or forecasted heat and cooling demand;

(iv) encourage new residential zones or new industrial plants which consume heat in their production processes to be located where available waste heat, as identified in the comprehensive assessment, can contribute to meeting their heat and cooling demands. This could include proposals that support the clustering of a number of individual installations in the same location with a view to ensuring an optimal matching between demand and supply for heat and cooling;

(v) encourage thermal electricity generating installations, industrial plants producing waste heat, waste incineration plants and

other waste-to-energy plants to be connected to the local district heating or cooling network;

(vi) encourage residential zones and industrial plants which consume heat in their production processes to be connected to the local district heating or cooling network;

(h) the share of high efficiency cogeneration and the potential established and progress achieved under Directive 2004/8/EC;

(i) an estimate of the primary energy to be saved;

(j) an estimate of public support measures to heating and cooling, if any, with the annual budget and identification of the potential aid element. This does not prejudice a separate notification of the public support schemes for a State aid assessment.

2. To the extent appropriate, the comprehensive assessment may be made up of an assembly of regional or local plans and strategies.

Eighth Schedule

Regulation 16(4)

Cost-benefit analysis

Part 1: General principles of the cost-benefit analysis

The purpose of preparing cost-benefit analyses in relation to measures for promoting efficiency in heating and cooling as referred to in regulation 16(4) is to provide a decision base for qualified prioritisation of limited resources at society level.

The cost-benefit analysis may either cover a project assessment or a group of projects for a broader local, regional or national assessment in order to establish the most cost-effective and beneficial heating or cooling option for a given geographical area for the purpose of heat planning.

Cost-benefit analyses for the purposes of regulation 16(4) shall include an economic analysis covering socio-economic and environmental factors.

The cost-benefit analyses shall include the following steps and considerations:

(a) Establishing a system boundary and geographical boundary

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The scope of the cost-benefit analyses in question determines the relevant energy system. The geographical boundary shall cover a suitable well-defined geographical area, e.g. a given region or metropolitan area, to avoid selecting sub-optimized solutions on a project by project basis.

(b) Integrated approach to demand and supply options

The cost-benefit analysis shall take into account all relevant supply resources available within the system and geographical boundary, using the data available, including waste heat from electricity generation and industrial installations and renewable energy, and the characteristics of and trends in heat and cooling demand.

(c) Constructing a baseline

The purpose of the baseline is to serve as a reference point, to which the alternative scenarios are evaluated.

(d) Identifying alternative scenarios

All relevant alternatives to the baseline shall be considered. Scenarios that are not feasible due to technical reasons, financial reasons, national regulation or time constraints may be excluded at an early stage of the cost benefit analysis if justified based on careful, explicit and well-documented considerations.

Only high-efficiency cogeneration, efficient district heating and cooling or efficient individual heating and cooling supply options as defined in regulation 2 should be taken into account in the cost-benefit analysis as alternative scenarios compared to the baseline.

(e) Method for the calculation of cost-benefit surplus

(i) The total long-term costs and benefits of heat or cooling supply options shall be assessed and compared.

(ii) The criterion for evaluation shall be the net present value (NPV) criterion.

(iii) The time horizon shall be chosen such that all relevant costs and benefits of the scenarios are included. For example, for a gas-fired power plant an appropriate time horizon could be 25 years, for a district heating system, 30 years, or for heating equipment such as boilers 20 years.

(f) Calculation and forecast of prices and other assumptions for the economic analysis

(i) The Minister shall provide assumptions, for the purpose of the cost-benefit analyses, on the prices of major input and output factors and the discount rate.

(ii) The discount rate used in the economic analysis for the calculation of net present value shall be chosen according to European or national guidelines*.

(iii) The Minister shall use national, European or international energy price development forecasts if appropriate in their national and, or regional or local context.

(iv) The prices used in the economic analysis shall reflect the true socio economic costs and benefits and should include external costs, such as environmental and health effects, to the extent possible, i.e. when a market price exists or when it is already included in European or national regulation.

(g) Economic analysis: Inventory of effects

The economic analyses shall take into account all relevant economic effects.

The Minister may assess and take into account in decision making costs and energy savings from the increased flexibility in energy supply and from a more optimal operation of the electricity networks, including avoided costs and savings from reduced infrastructure investment, in the analysed scenarios.

The costs and benefits taken into account shall include at least the following:

(i) Benefits

a. Value of output to the consumer (heat and electricity)

b. External benefits such as environmental and health benefits, to the extent possible

(ii) Costs

a. Capital costs of plants and equipments

b. Capital costs of the associated energy networks

* The national discount rate chosen for the purpose of economic analysis should take into account data provided by the European Central Bank.

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- c. Variable and fixed operating costs
- d. Energy costs
- e. Environmental and health cost, to the extent possible

(h) Sensitivity analysis:

A sensitivity analysis shall be included to assess the costs and benefits of a project or group of projects based on different energy prices, discount rates and other variable factors having a significant impact on the outcome of the calculations.

The Minister shall carry out the cost-benefit analyses under regulation 12. Competent local, regional and national authorities or operators of individual installations may be required to carry out the economic and financial analysis. The Minister shall provide the detailed methodologies and assumptions in accordance with this Schedule and establish and make public the procedures for the economic analysis.

Part 2: Principles for the purpose of regulation 16(4) and (10)

The cost-benefit analyses shall provide information for the purpose of the measures referred to in regulation 16(4) and (10):

If an electricity-only installation or an installation without heat recovery is planned, a comparison shall be made between the planned installations or the planned refurbishment and an equivalent installation producing the same amount of electricity or process heat, but recovering the waste heat and supplying heat through high efficiency cogeneration and, or district heating and cooling networks.

Within a given geographical boundary the assessment shall take into account the planned installation and any appropriate existing or potential heat demand points that could be supplied from it, taking into account rational possibilities (for example technical feasibility and distance).

The system boundary shall be set to include the planned installation and the heat loads, such as building/s and industrial process. Within this system boundary the total cost of providing heat and power shall be determined for both cases and compared.

Heat loads shall include existing heat loads, such as an industrial installation or an existing district heating system, and also, in urban areas, the heat load and costs that would exist if a group of buildings or part of a city were provided with and, or connected into a new district heating network.

The cost-benefit analysis shall be based on a description of the planned installation and the comparison installation(s), covering electrical and thermal

capacity, as applicable, fuel type, planned usage and the number of planned operating hours annually, location and electricity and thermal demand.

For the purpose of the comparison, the thermal energy demand and the types of heating and cooling used by the nearby heat demand points shall be taken into account. The comparison shall cover infrastructure related costs for the planned and comparison installation.

Cost-benefit analyses for the purposes of regulation 16(4) shall include an economic analysis covering a financial analysis reflecting actual cash flow transactions from investing in and operating individual installations.

Projects with positive cost-benefit outcome are those where the sum of discounted benefits in the economic and financial analysis exceeds the sum of discounted costs (cost-benefit surplus).

The Minister shall set guiding principles for the methodology, assumptions and time horizon for the economic analysis.

The Minister may require that the companies responsible for the operation of thermal electric generation installations, industrial companies, district heating and cooling networks, or other parties influenced by the defined system boundary and geographical boundary, contribute data for use in assessing the costs and benefits of an individual installation.

Ninth Schedule

Regulation 16

Guarantee of origin for electricity produced from high efficiency cogeneration

- (a) The Authority shall take measures to ensure that:
- (i) the guarantee of origin of the electricity produced from high-efficiency cogeneration:
 - enable producers to demonstrate that the electricity they sell is produced from high-efficiency cogeneration and is issued to this effect in response to a request from the producer,
 - is accurate, reliable and fraud-resistant,
 - is issued, transferred and cancelled electronically;

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(ii) the same unit of energy from high-efficiency cogeneration is taken into account only once.

(b) The guarantee of origin referred to in regulation 16(13) shall contain at least the following information:

- the identity, location, type and capacity (thermal and electrical) of the installation where the energy was produced;
- the dates and places of production;
- the lower calorific value of the fuel source from which the electricity was produced;
- the quantity and the use of the heat generated together with the electricity;
- the quantity of electricity from high efficiency cogeneration in accordance with the Second Schedule to these regulations that the guarantee represents;
- the primary energy savings calculated in accordance with the Second Schedule to these regulations based on the harmonised efficiency reference values indicated in paragraph (f) of the Second Schedule;
- the nominal electric and thermal efficiency of the plant;
- whether and to what extent the installation has benefited from investment support;
- whether and to what extent the unit of energy has benefited in any other way from a national support scheme, and the type of support scheme;
- the date on which the installation became operational; and
- the date and country of issue and a unique identification number.

The guarantee of origin shall be of the standard size of 1 MWh. It shall relate to the net electricity output measured at the station boundary and exported to the grid.

Tenth Schedule

Regulation 17(6)

Energy efficiency criteria for energy network regulation
and for electricity network tariffs

1. Network tariffs shall be cost-reflective of cost-savings in networks achieved from demand side and demand response measures and distributed generation, including savings from lowering the cost of delivery or of network investment and a more optimal operation of the network.

2. Network regulation and tariffs shall not prevent network operators or energy retailers making available system services for demand response measures, demand management and distributed generation on organised electricity markets, in particular:

(a) the shifting of the load from peak to off-peak times by final customers taking into account the availability of renewable energy, energy from cogeneration and distributed generation;

(b) energy savings from demand response of distributed consumers by energy aggregators;

(c) demand reduction from energy efficiency measures undertaken by energy service providers, including energy service companies;

(d) the connection and dispatch of generation sources at lower voltage levels;

(e) the connection of generation sources from closer location to the consumption; and

(f) the storage of energy.

For the purposes of this provision the term "organised electricity markets" shall include over-the-counter markets and electricity exchanges for trading energy, capacity, balancing and ancillary services in all timeframes, including forward, day-ahead and intra-day markets.

3. Network or retail tariffs may support dynamic pricing for demand response measures by final customers, such as:

(a) time-of-use tariffs;

(b) critical peak pricing;

(c) real time pricing; and

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- (d) peak time rebates.
-

Eleventh Schedule

Regulation 17(6)

Energy efficiency requirements for transmission system operators and distribution system operators

Transmission and distribution system operators shall:

(a) set up and make public their standard rules relating to the bearing and sharing of costs of technical adaptations, such as grid connections and grid reinforcements, improved operation of the grid and rules on the non-discriminatory implementation of the grid codes, which are necessary in order to integrate new producers feeding electricity produced from high efficiency cogeneration into the interconnected grid;

(b) provide any new producer of electricity produced from high-efficiency cogeneration wishing to be connected to the system with the comprehensive and necessary information required, including:

(i) a comprehensive and detailed estimate of the costs associated with the connection;

(ii) a reasonable and precise timetable for receiving and processing the request for grid connection;

(iii) a reasonable indicative timetable for any proposed grid connection. The overall process to become connected to the grid should be no longer than 24 months, bearing in mind what is reasonably practicable and non-discriminatory;

(c) provide standardised and simplified procedures for the connection of distributed high efficiency cogeneration producers to facilitate their connection to the grid.

The standard rules referred to in paragraph (a) shall be based on objective, transparent and non-discriminatory criteria taking particular account of all the costs and benefits associated with the connection of those producers to the grid. They may provide for different types of connection.

Twelfth Schedule

Regulation 20(1)(d)

Minimum items to be included in energy performance contracts with the public sector or in the associated tender specifications

- Clear and transparent list of the efficiency measures to be implemented or the efficiency results to be obtained.
 - Guaranteed savings to be achieved by implementing the measures of the contract.
 - Duration and milestones of the contract, terms and period of notice.
 - Clear and transparent list of the obligations of each contracting party.
 - Reference date(s) to establish achieved savings.
 - Clear and transparent list of steps to be performed to implement a measure or package of measures and, where relevant, associated costs.
 - Obligation to fully implement the measures in the contract and documentation of all changes made during the project.
 - Regulations specifying the inclusion of equivalent requirements in any subcontracting with third parties.
 - Clear and transparent display of financial implications of the project and distribution of the share of both parties in the monetary savings achieved (i.e. remuneration of the service provider).
 - Clear and transparent provisions on measurement and verification of the guaranteed savings achieved, quality checks and guarantees.
 - Provisions clarifying the procedure to deal with changing framework conditions that affect the content and the outcome of the contract (i.e. changing energy prices, use intensity of an installation).
 - Detailed information on the obligations of each of the contracting party and of the penalties for their breach.
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Thirteenth Schedule

Regulations 3(1), 5(1), (8), and (9), 7(1), and (4), 9(1), 10, 16, 17, 18, 21, 24(1) and (2)

General framework for reporting

PART 1. General framework for annual reports

The annual reports referred to in regulation 24 (1) provide a basis for the monitoring of the progress towards national 2020 targets. The reports shall include the following minimum information:

- (a) an estimate of following indicators in the year before last (year X* -2):
- (i) primary energy consumption as defined in regulation 2;
 - (ii) total final energy consumption;
 - (iii) final energy consumption by sector
 - industry
 - transport (split between passenger and freight transport, if available)
 - households
 - services;
 - (iv) gross value added by sector
 - industry
 - services
 - (v) disposable income of households;
 - (vi) gross domestic product (GDP);
 - (vii) electricity generation from thermal power generation;
 - (viii) electricity generation from combined heat and power;
 - (ix) heat generation from thermal power generation;

* To be understood as X=current year.

- (x) heat generation from combined heat and power plants, including industrial waste heat;
- (xi) fuel input for thermal power generation;
- (xii) passenger kilometers (pkm), if available;
- (xiii) tonne kilometers (tkm), if available;
- (xiv) combined transport kilometres (pkm + tkm), in case (xii) and (xiii) are not available;
- (xv) population.

In sectors where energy consumption remains stable or is growing, the Minister shall analyse the reasons for it and attach his appraisal to the estimates;

(b) updates on major legislative and non-legislative measures implemented in the previous year which contribute towards the overall national energy efficiency targets for 2020;

(c) the total building floor area of the buildings with a total useful floor area over 500 m² and as of the 9th July 2015 over 250 m² owned and occupied by Government that, on the 1st January of the year in which the report is due, did not meet the energy performance requirements referred to in regulation 5(1);

(d) the total building floor area of heated and, or cooled buildings owned and occupied by Government that was renovated in the previous year referred to in regulation 5(1) or the amount of energy consumption savings in eligible buildings owned and occupied by Government as referred to in regulation 5(8);

(e) energy savings achieved through the national energy efficiency obligation scheme referred to in regulation 7(1) or the alternative measures adopted in application of regulation 9(1).

The first report shall also include the national target referred to in regulation 3(1).

In the annual reports referred to in regulation 24(1) the Minister may also include additional national targets. These may be related in particular to the statistical indicators enumerated in Part 1 paragraph (a) of this Schedule or combinations thereof, such as primary or final energy intensity or sectoral energy intensities.

PART 2. General framework for the Plan

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The Plan referred to in regulation 24(2) shall provide a framework for the development of national energy efficiency strategies.

The Plan shall cover significant energy efficiency improvement measures and expected/achieved energy savings, including those in the supply, transmission and distribution of energy as well as energy end-use. The Plan shall include the following minimum information:

1. Targets and strategies

- the indicative national energy efficiency target for 2020 as required by regulation 3(1),

- the national indicative energy savings target set in regulation 4(1) of the Energy End-use Efficiency and Energy Services Regulations,

- other existing energy efficiency targets addressing the whole economy or specific sectors.

2. Measures and energy savings

The Plan shall provide information on measures adopted or planned to be adopted in view of implementing the main elements of these regulations and on their related savings.

(a) Primary energy savings

The Plan shall list significant measures and actions taken towards primary energy saving in all sectors of the economy. For every measure or package of measures/actions estimations of expected savings for 2020 and savings achieved by the time of the reporting shall be provided.

Where available, information on other impacts/benefits of the measures (greenhouse gas emissions reduction, improved air quality, job creation, etc.) and the budget for the implementation should be provided.

(b) Final energy savings

The first and second Plans shall include the results with regard to the fulfilment of the final energy savings target set out in regulation 4(1) and (2) of the Energy End-use Efficiency and Energy Services Regulations. If calculation/estimation of savings per measure is not available, sector level energy reduction shall be shown due to (the combination) of measures.

The first and second Plans shall also include the measurement and, or calculation methodology used for calculating the energy savings. If the "recommended methodology"* is applied, the Plan should provide references to this.

3. Specific information related to provisions of these regulations

3.1. Public bodies (Regulation 5)

The Plan shall include the list of public bodies having developed an energy efficiency plan in accordance with regulation 5(9).

3.2. Energy efficiency obligations (Regulation 7)

The Plan shall include the national coefficients chosen in accordance with the Fourth Schedule.

The first Plan shall include a short description of the national scheme referred to in regulation 7(1) or the alternative measures adopted in application of regulation 9(1).

3.3. Energy audits and management systems (regulation 10)

The Plan shall include:

- (a) the number of energy audits carried out in the previous period;
- (b) the number of energy audits carried out in large enterprises in the previous period;
- (c) the number of large companies in their territory, with an indication of the number of those to which regulation 7(4) is applicable.

3.4. Promotion of efficient heating and cooling (Regulation 16)

The Plan shall include an assessment of the progress achieved in implementing the comprehensive assessment referred to in regulation 16(1).

3.5. Energy transmission and distribution (Regulation 17)

The first Plan and the subsequent reports due every 10 years thereafter shall include the assessment made, the measures and investments identified to utilise the energy efficiency potentials of the gas and electricity infrastructure referred to in regulation 17(2).

3.6. The Minister shall report, as part of the Plan, on the measures undertaken to enable and develop demand response as referred to in regulation 17.

3.7. Availability of qualification, accreditation and certification schemes (Regulation 18)

* Recommendations on Measurement and Verification Methods in the framework of the Directive 2006/32/EC on Energy End-Use Efficiency and Energy Services.

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The Plan shall include information on the available qualification, accreditation and certification schemes or equivalent qualification schemes for the providers of energy services, energy audits and energy efficiency improvement measures.

3.8. Energy Services (Regulation 20)

The Plan shall include an internet link to the website where the list or the interface of energy services providers referred to in regulation 20 can be accessible.

3.9. Other measures to promote energy efficiency (Regulation 21)

The first Plan shall include a list of the measures referred to in regulation 21(1).

